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TRANSMITTAL OF APPEAL BRIEF (Large Entity)	Docket No. ITL.1014US

In Re Application Of: Achintya K. Bhowmik

OIPE IAP78 DEC 11 2006 PATENT & TRADEMARK OFFICE

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
10/669,938	09/24/2003	Derek L. Dupuis	21906	2883	4613

Invention: Tunable Dispersion Compensation Using a Photoelastic Medium

COMMISSIONER FOR PATENTS:

Transmitted herewith is the Appeal Brief in this application, with respect to the Notice of Appeal filed on: October 12, 2006

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Dated: December 12, 2006

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(Date)

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Signature of Person Mailing Correspondence

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Typed or Printed Name of Person Mailing Correspondence

cc:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:		§		
	Achintya K. Bhowmik	§	Art Unit:	2883
		§		
Serial No.:	10/669,938	§	Examiner:	Derek L. Dupuis
		§		
Filed:	September 24, 2003	§	Docket:	ITL.1014US P16650
		§		
For:	Tunable Dispersion Compensation Using a Photoelastic Medium	§	Assignee:	Intel Corporation
		§		

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APPEAL BRIEF

Date of Deposit: December 6, 2006
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Rose Marie Henderson

Rose Marie Henderson

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REAL PARTY IN INTEREST

The real party in interest is the assignee Intel Corporation.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

Claims 1-15 (Rejected).

Claims 1-15 are rejected and are the subject of this Appeal Brief.

STATUS OF AMENDMENTS

All amendments have been entered.

SUMMARY OF CLAIMED SUBJECT MATTER

In the following discussion, the independent claims are read on one of many possible embodiments without limiting the claims:

1. A method comprising:

determining an amount of dispersion in an optical system (Specification at page 4, lines 3-14); and

applying an amount of stress to an optical medium to provide dispersion compensation for the determined amount of dispersion (Specification at page 4, lines 11-14).

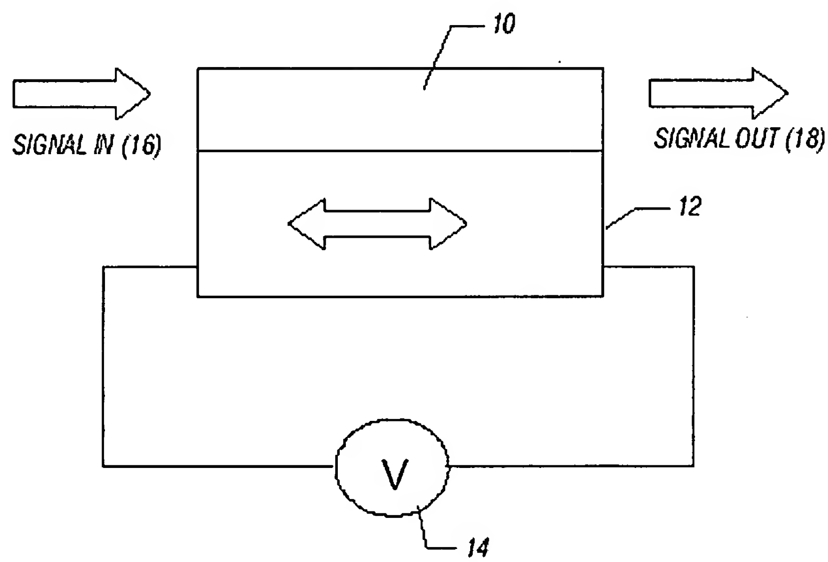

FIG. 1

6. A method comprising:

securing a photoelastic medium (10, Figure 1) to a piezoelectric device (12, Figure 1) (Specification at page 4, line 24 to page 5, line 1); and

determining an amount of dispersion in an optical system (Specification at page 4, lines 3-14);

determining an amount of stress to provide compensation for the determined amount of dispersion (Specification at page 4, lines 11-14);

variably applying a tunable voltage (14, Figure 1) to the piezoelectric device to induce said stress in said photoelastic medium to tunably correct the determined dispersion generated in said optical system coupled to said photoelastic medium (Specification at page 4, line 24 to page 5, line 1; page 2, line 18 to page 3, line 2).

9. An optical system comprising:

an optical medium (Figure 1, 10) defining an optical path (Specification at page 3, lines 4-7);

a photoelastic material (Figure 1, 10) in said optical path (Specification at page 3, lines 8-9); and

a device (12, Figure 1) to tunably stress said photoelastic medium to variably generate a dispersion of an appropriate polarity and magnitude to correct a determined amount of dispersion induced in said optical medium (Specification at page 2, line 18 to page 3, line 2).

12. An optical system comprising:

an optical medium (Figure 1, 10) defining an optical path (Specification at page 3, lines 4-7);

a photoelastic material (Figure 1, 10) in said optical path (Specification at page 3, lines 8-9); and

a tunable piezoelectric device (12, Figure 1) coupled to said photoelastic material to determine a variable amount of stress needed to tunably compensate a determined amount of dispersion in said medium (Specification at page 2, line 18 to page 3, line 2).

At this point, no issue has been raised that would suggest that the words in the claims have any meaning other than their ordinary meanings. Nothing in this section should be taken as an indication that any claim term has a meaning other than its ordinary meaning.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Are Claims 1-15 Anticipated Under 35 U.S.C. § 102(e) by Chien et al.?

ARGUMENT

A. Are Claims 1-15 Anticipated Under 35 U.S.C. § 102(e) by Chien et al.?

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. Inc. v. Union Oil Co.,* 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir.), *cert. denied,* 484 U.S. 827 (1987). The inquiry as to whether a reference anticipates a claim must focus on what subject matter is encompassed by the claim and what subject matter is described by the reference. As set forth by the court in *Kalman v. Kimberly-Clark Corp.,* 713 F.2d 760, 772, 218 U.S.P.Q. 781, 789 (Fed. Cir. 1983), *cert. denied,* 465 U.S. 1026 (1984), it is only necessary for the claims to "'read on' something disclosed in the reference, i.e., all limitations of the claim are found in the reference, or 'fully met' by it." While all elements of the claimed invention must appear in a single reference, additional references may be used to interpret the anticipating reference and to shed light on its meaning, particularly to those skilled in the art at the relevant time. *See Studiengesellschaft Kohle m.b.H. v. Dart Indus., Inc.,* 726 F.2d 724, 726-727, 220 U.S.P.Q. 841, 842-843 (Fed. Cir. 1984).

Claim 1 calls for determining an amount of dispersion in an optical system and then applying an amount of stress to the system to provide the dispersion compensation for the determined amount of dispersion. In effect, the system provides that amount of stress which is needed to compensate for the existent dispersion.

In contrast, what the cited reference does, in the relied upon paragraphs 50-52, is merely determine whether there is dispersion and, if so, simply apply a corrective signal to reduce the amount of dispersion. See paragraph 52 ("to lower the amount of PMD of the controlled optical signal"). Chien uses a closed feedback control (paragraph 50). Eventually he will reduce the dispersion to zero if given enough time. In other words, the feedback system will continue to detect dispersion, apply the same fixed correction to reduce the dispersion over and over and over, until the dispersion is zero, if enough time is available.

In contrast, with the claimed system, one determines the amount of compensation needed to remove the dispersion and applies the correct amount from the beginning. In contrast to an iterative system like Chien, a one hit system offers the advantage that the correction may be applied more quickly in some cases and in adequate time to correct the signal before it is too late.

Therefore, the rejection should be reversed.

* * *

Applicant respectfully requests that each of the final rejections be reversed and that the claims subject to this Appeal be allowed to issue.

Respectfully submitted,

Date: December 6, 2006

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CLAIMS APPENDIX

The claims on appeal are:

1. A method comprising:

determining an amount of dispersion in an optical system; and

applying an amount of stress to an optical medium to provide dispersion compensation for the determined amount of dispersion.

2. The method of claim 1 including applying stress to an optical medium including a photoelastic medium to generate a corrective dispersion of the opposite polarity of a dispersion induced in the optical medium.

3. The method of claim 2 including using a piezoelectric device to generate stress in an optical medium.

4. The method of claim 3 including controlling the amount of stress and thereby the desired dispersion compensation by controlling the voltage applied to said piezoelectric device.

5. The method of claim 4 including securing the photoelastic medium to said piezoelectric device and passing an optical signal through said photoelastic medium.

6. A method comprising:

securing a photoelastic medium to a piezoelectric device; and

determining an amount of dispersion in an optical system;

determining an amount of stress to provide compensation for the determined amount of dispersion;

variably applying a tunable voltage to the piezoelectric device to induce said stress in said photoelastic medium to tunably correct the determined dispersion generated in said optical system coupled to said photoelastic medium.

7. The method of claim 6 including controlling the voltage applied to said piezoelectric device to generate a dispersion of a polarity opposite to the polarity of a dispersion generated in said optical system.

8. The method of claim 7 including generating a corrective dispersion of substantially the same magnitude as the dispersion generated in said optical system.

9. An optical system comprising:

an optical medium defining an optical path;

a photoelastic material in said optical path; and

a device to tunably stress said photoelastic medium to variably generate a dispersion of an appropriate polarity and magnitude to correct a determined amount of dispersion induced in said optical medium.

10. The system of claim 9 wherein said device is a piezoelectric actuator.

11. The system of claim 10 including a voltage source to control the amount of voltage applied to said piezoelectric actuator to enable tuning of the dispersion applied through said photoelastic medium.

12. An optical system comprising:

an optical medium defining an optical path;

a photoelastic material in said optical path; and

a tunable piezoelectric device coupled to said photoelastic material to determine a variable amount of stress needed to tunably compensate a determined amount of dispersion in said medium.

13. The system of claim 12 wherein said piezoelectric actuator is secured to said photoelastic medium.

14. The system of claim 13 including a voltage source to controllably apply potential to said piezoelectric actuator.

15.The system of claim 14 to provide a tunable magnitude and polarity of dispersion to cancel dispersion generated along said optical path by said optical medium.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None